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FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

In the Matter of

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Reallocation of the 216-220 MHz,
 1390-1395 MHz, 1427-1429 MHz,
 1429-1432 MHz, 1432-1435 MHz,
 1670-1675 MHz, and 2385-2390 MHz
 Government Transfer Bands

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ET Dkt. No. 00-221 ✓
 RM-9854

COMMENTS OF DATACOM INFORMATION SYSTEMS, LLC

DataCom Information Systems, LLC files these comments to urge the Federal Communications Commission ("FCC" or the Commission") to allocate the 1427-1429 MHz band, on a primary basis, for utility telemetry operations, including automatic meter reading ("AMR"), and to allow utility telemetry and AMR operations to share the 1429-1432 MHz band on a co-primary basis with the medical telemetry service, as described in Option 2 of the Commission's notice of proposed rulemaking ("*NPRM*") in the above-referenced proceeding.

DISCUSSION

DataCom Information Systems owns and operates an automated meter reading network that utilizes the frequencies under consideration with this petition. With the cooperation of Itron, Inc. ("Itron"), DataCom Information Systems utilizes the frequencies to transmit and receive electric utility meter reading data for over 500,000 meters on a daily basis in the Greater Pittsburgh, Pennsylvania metropolitan area. The company requires the utilization of these frequencies to conduct its business.

In 1992, Congress directed the federal government to foster the development of new and innovative AMR technologies believing that such technologies would lead to efficient energy use and would protect the public health and safety.¹ Since that time the Commission has authorized use

¹ *Telephone and Dispute Resolution Act*, Pub. L. No. 102-556, 106 Stat. 4181 (1992). Congress remains concerned about the use of spectrum for utility use including recommending that NTIA conduct a study on energy, water, and railroad spectrum use in one of its appropriations bills and directing the FCC to issue a report regarding the same. H.R. Rep. No. 106-1005, at 114-115 (2000).

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of the 1427-1432 MHz (“1.4 GHz”) frequency bands for AMR service on a nationwide basis. Now the FCC has received a petition from Itron requesting a formal allocation of the 1427-1432 MHz band for utility telemetry and AMR. Several other parties filed petitions for rulemaking requesting allocation of certain of the 1.4 GHz band for various other uses, some of which are incompatible with using the band for utility telemetry and AMR.

In its *NPRM*, the FCC proposes three options for allocation of the 1.4 GHz spectrum. DataCom Information Systems urges the Commission to adopt Option 2, which would allocate the 1427-1429 MHz band on a primary basis exclusively for telemetry operations and the 1429-1432 MHz band on a co-primary basis to utility and medical telemetry. Adopting Option 2 would continue the Commission’s policies, serve the substantial public interest in providing a “home” for AMR, and protect the substantial investment made by utilities and other critical infrastructure companies who are deploying telemetry services.

Use of the 1.4 GHz band for AMR helps to support critical infrastructure industries, who need wireless technologies to monitor systems remotely and to collect data from distant and widely dispersed locations in a timely and cost-effective manner. AMR technologies enhance utility productivity and efficiency and speed responses to natural disasters or other system anomalies that may pose a threat to public health or safety. In addition:

- AMR increases utility productivity and efficiency, making it possible for a meter reader to increase by a factor of ten, twenty, or more the number of meters that can be read in an eight-hour shift; obviates the need for estimated bills and multiple trips to customer homes; and improves a utility’s ability to detect meter tampering and theft of services.
- AMR establishes a direct link between a utility and its customer premises utility meters, enabling the utility to offer its customers a variety of strategies to reduce peak demand and shift usage to off-peak hours, as well as encourage conservation by providing customers with detailed, real-time price and consumption data.
- AMR is a necessity in a deregulated utility environment in which separate entities may be competing in the generation, transmission, wholesaling, and distribution to end users of energy. Reconciling the multiple, overlapping transactions involving these service providers requires consumption information on a daily basis, and in some cases more frequently.

Because of such benefits, AMR use is increasing and will continue to do so in the future. DataCom Information Systems uses AMR to supply its affiliate, Duquesne Light Company (“DLC”), with meter reading data on a daily basis. Through the use of AMR data DLC is able to enhance its customer relationship management (“CRM”) and overall customer satisfaction ratings by using the daily reads to support:

- Off cycle read requests for turn on/offers and duals, move-ins/move-outs and customer choice & switching reads;
- Reduction of billing errors, estimates and missed reads, as well as the number of calls to the call center; and
- Timely reconciliation of accounts, reduction of read-to-bill time frame and automation of meter reading functions, reducing the lag time to new installs or final bills.

Labor reductions have also been achieved and transportation expenses have been minimized.

The outage messaging and monitoring allows for DLC to maximize the value of its distribution system assets. Advanced outage monitoring includes the telephone endpoint responses which provide confirmed customer outage information while the radio frequency (“RF”) network outage information improves overall system reliability by extending the existing 800 points of supervisory control and data acquisition (“SCADA”) with another 9,600 neighborhood response units. All of this information improves outage management by increasing DLC’s internal awareness of outage and restoration. Rapid outage response by line crews to trouble spots improves.

Customer satisfaction and the detailed AMR information assists with predicting restoration time. The power quality information from the advanced AMR meters supporting DLC’s commercial and industrial customers can assist with system planning efforts and support directed maintenance efforts improving system performance and reducing customer complaints.

The AMR information is playing a significant role in DLC’s ability to provide enhanced services as well. Summary and customized billing is more fully enabled with daily readings. This data permits development of customized bill formats and allows for summary

billing of multiple accounts. Load profiling is one area where the improvements are significant. Interval data is traditionally collected on a representative-sampling basis. The interval data and complex billing determinants allow for more detailed historic trending. In the area of retail competition this information permits accurate daily supplier reconciliation, supports the day ahead and week ahead forecasting and allows for handling of current customers and new suppliers. It enables:

- Timely administration of customer switching;
- Performance based rate development;
- The creation of special rates; and
- Detailed energy utilization analysis.

All of this information is currently being examined for web presentment. This pushes the usage of the data to the next level allowing self-service accessibility to customers, suppliers, and brokers. All of these efforts support the Pennsylvania Public Utilities Commission ("PAPUC") Customer Choice programs in the deregulated electric market.

We also plan to use AMR in providing data acquisition services for other utility companies in the future.

Utilities have invested many millions of dollars in AMR networks at 1.4 GHz. Neither Option 1 nor Option 3 would allow AMR services to continue to use the complete spectrum range in which AMR investments are currently used. There is no benefit to providing utilities access to other frequency bands for AMR, as set out in Option 1. The AMR installed base and all equipment development is in the 1427-1432 MHz band. In addition, the benefits to utilities from having access to 2 MHz of paired frequencies, as provided in Option 1, would not make up for the loss of the benefits of AMR and other telemetry.

- Utilities would not have exclusive access to the paired frequencies, since they would be available for licensing to all businesses and other entities.

- Any service that is granted access to the 1427-29 MHz band will have to protect essential military operations through 2004 and will have to protect radio astronomy operations indefinitely. These constraints will substantially limit deployment of general purpose mobile and fixed radio services by utilities, while AMR has a proven record of compatibility with military and radio astronomy uses of the spectrum.

Under Option 3, AMR service users lose the use of the 1430-1432 MHz band to Little LEOs and PMRS while obtaining the 1427-1430 MHz band for use on a co-primary basis with WMTS. Either of these two options would cause AMR service users to lose spectrum and would prove costly, disruptive, and inefficient. Neither option upgrades AMR status throughout the entire spectrum band in which AMR currently operates, as would be provided for by Option 2.

Finally, allocating the 1427-1432 MHz band for AMR and utility telemetry would be spectrum efficient and would harmonize spectrum use for these purposes with Canada, thereby easing the need for cross-border frequency coordination and giving U.S. manufacturers and service providers a wider market opportunity.

For all of these reasons, DataCom Information Systems urges the Commission to adopt Option 2.

Respectfully,



Peggy Anne Page

President, DataCom Information Systems, LLC